April-11-13 7:51:01 AM

Item ID: D4073-1 Accept *N900040100* Setup Start **Revision ID:** Door Hinge Item Name: **Start Oty: 12.00 Start Date:** 4/11/13 **Cust Item ID:** Required Date: 4/25/13 Req'd Qty: 12.00 **Customer:** Reference: Run Process Plan: MLJ Approvals: Date: 13-04-11 Tooling: Date: Stop Date: SPC (Y/N): Date: Sequence 1D/ **Operation** Set Up/ Tool ID Tool # Plan Reject Accept Reject Insp. Work Center ID Description **Run Hours** Code Otv Qty Number Stamp **Draw Nbr Revision Nbr** D4073 В 100 Cut blanks as per folio 0.00 JE/1-2013-04-17 *100* Bandsaw 0.00 Memo Jeaspa Bandsaw cut blank 4.563" long 105 0.00 *105* HAAS 1 0.00 Memo HAAS CNC vertical machine #1 Mill as per Dwg an Folio FA939 Dwg Rev: Folio Rev

Deburr

											DQA:	Da	te:	
Yes	/ No				WORK ORDER NON-	COI	NFORM	MANCE / UP	DATE	QA Clo	osed:	Da	te:	`
or.					DISPOSITION				AGAINST DI	PARTN	IENT	/PROCESS		
Part No. NCR No. Root Descri					Rework Scrap Use-as-is Work Order Update	Skid-tube Crosstube Machining Small Fab Thermoforming Finishing Large Fab Composite			Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier				Engineering Quality Other	
				Descri	ption of work order update		Initial	Act	tion	Sign	&			
	Date	Step	Qty	c	or Non-conformance	Cr	nief Eng	Desc	ription	Da	te	Verification	n -	QC Inspector
				·										
	·					AUI	LT CATE	GORY					—	
	Bending Centre No Cracks Crushed/ Cuffs Heat Trea	Crimped at		O/S	Bend BOM/Route Broken/Damaged Burrs Contamination Countersink		Inspecti Instruct Mainte Mislabe	on incomplete ions incomplete/i nance led	Unclear	Over/L Part In Part Lo Part M Positio	Inder corre st/M oved ned V	ct issing Vrong		Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
	ng C	ng Gear Bending Centre No Cracks Crushed/ Cuffs Heat Trea	Date Step Date Step Bending Centre Not Concert Cracks Crushed/Crimped Cuffs Heat Treat	Date Step Qty Date Step Qty Bending Centre Not Concentric to Cracks Crushed/Crimped Cuffs	ng Gear Bending Centre Not Concentric to O/S Cracks Crushed/Crimped Cuffs Heat Treat	Price DISPOSITION Rework Scrap Use-as-is Work Order Update Date Step Qty Description of work order update or Non-conformance Date Step Qty Order Order	Parison Disposition Rework Scrap Use-as-is Work Order Update Date Step Qty Description of work order update or Non-conformance Characteristics of the process of the pro	Principles Disposition Rework Scrap Use-as-is Use-as-is Work Order Update Initial Chief Eng Chief	Primary and the properties of	Price DISPOSITION Rework Skid-tube Crosstube Machining Small Fab Thermoforming Finishing Composite	WORK ORDER NON-CONFORMANCE / UPDATE QA Cla ar: DISPOSITION Rework Scrap Use-as-is Work Order Update Date Step Qty Description of work order update Chief Eng Composite FAULT CATEGORY Reger Gear General Bending Centre Not Concentric to O/S Cracks Cracks Broken/Damaged Crushed/Crimped Crushed/Crimped Custes Adams Adains Depart Machining Small Fab Machining Small Fab Thermoforming Finishing Rec Composite Composite Chief Eng Description Dai FAULT CATEGORY Grain Hardware Over/U Instructions Incomplete Part In Instructions Incomplete/Unclear Part Maintenance Part Maintenance Part Maintenance Part Maintenance Part Maintenance Positio	WORK ORDER NON-CONFORMANCE / UPDATE QA Closed: Pr: DISPOSITION Rework Scrap Use-as-is Work Order Update Date Step Qty Description of work order update Or Non-conformance FAULT CATEGORY Read General Bend Grain Centre Not Concentric to O/S BOM/Route Cracks Broken/Damaged Contamination Countersink Maintenance Mislabeled AGAINST DEPARTMENT Skid-tube Machining Small Fab Pro Thermoforming Large Fab Corosstube Machining Thermoforming Corosstube Machining Corosstube Mach	WORK ORDER NON-CONFORMANCE / UPDATE OA Closed: Dai OA Closed	WORK ORDER NON-CONFORMANCE / UPDATE QA Closed: Date: DISPOSITION Rework Scrap Use-as-is Work Order Update Or Non-conformance Date Step Qty Or Non-conformance FAULT CATEGORY Reading Centre Not Concentric to O/S Centre Not Concentric to O/S Rockplands Bend Centre Not Centre No

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drill Holes

Drawing Finish

Folio

April-11-13 7:51:01 AM

D4073-1 Item ID: **Revision ID:**

Required Date: 4/25/13

Accept

N900040100

Setup Start

Item Name: Start Date:

Door Hinge 4/11/13

Start Qty: 12.00 Req'd Qty: 12.00

Date: _____

Cust Item ID:

Customer:

Reference:

Approvals: **Process Plan:** Date:

Tooling:

SPC (Y/N):

Date:

Date:

Run

Stop

Sequence ID/ Work Center ID

Operation Description

QC2- Inspect parts off machine FAI/FAIB

Set Up/ **Run Hours** Tool ID

Tool # Plan Code

Accept Qty

Reject Reject Qty Number

Insp. Stamp

110

110 QC.

Memo

0.00 0.00

Quality Control

120

120

QC

QC8- Inspect parts - second check

Memo

0.00

0.00

F.F. 13/04/19

Quality Control

150

Chemical Conversion Coat per QSI005 4.1

0.00

150 HandFinish

Memo

0.00

Hand Finishing

NCR:	Yes	/ No				WORK ORDER NON-C	100	NFORM	MANCE / U	PDATE					
												QA Closed:	Da	ite:	
Work Orde	né.					DISPOSITION				AGAINST (DEP	ARTMENT	/PROCESS		
Work Orde	er. -					Rework	1		Skid-tube	Crosstube	\neg		Water Jet		Engineering
Part I	No.					Scrap	1		Machining	Small Fab	\dashv	Pro	d. Eng. Coor.	\vdash	Quality
1 4111	•••			·	· · · ·	Use-as-is	1 1		noforming	Finishing	┪		e/Packaging	-	Other
NCR I	Vo.					Work Order Update	1		Large Fab	Composite	ヿ	,	Supplier	-	
	•														
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Cause		Date	Step	Qty		or Non-conformance	Ch	ief Eng	Des	cription	4	Date	Verification	n	QC Inspector
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Operator	Ш								•		ı				
Material				1							ı			1	
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Other	Ш								· · · · · · · · · · · · · · · · · · ·					l	
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Training	\vdash													l	
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	П	Inspectio	n Strip in	Tube	<u> </u>	Cut Too Short		Misread	i	Ī		Power Loss/S	Surge		Other
	-	Ripples in	-			Drill Holes		Offset		_					
		Torque W	/aves in E	Extrusio	n T	Drawing		Out of 0	Calibration		_				
		Turning S	equence			Finish		Out of S	Sequence						

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Folio

Packaging

April-11-13 7:51:01 AM Item ID: D4073-1 Accept *N900040100* Setup Start **Revision ID:** Item Name: Door Hinge **Start Qty: 12.00 Start Date:** 4/11/13 **Cust Item ID:** Req'd Qty: 12.00 Required Date: 4/25/13 **Customer:** Reference: Run Process Plan: Approvals: Date: Tooling: Date: Date: SPC (Y/N): Date: Sequence ID/ Tool ID **Operation** Set Up/ Tool # Plan Reject Accept Reject Insp. **Work Center ID** Description **Run Hours** Code Qty Number Qty Stamp 160 White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum 51 not 1-1me; 3=30 *160* Powdercoat Memo Powder Coating w 125069 FinishTime: 4:00 170 QC3-Inspect Part Finish 0.00 *170* QC 0.00 Memo Quality Control Identify as per dwg & Stock Location 180 0.00 *120* Packaging 0.00 Memo

											DQA:	Date	:	
NCR:	⁄es	/ No				WORK ORDER NON-	COI	NFORM	MANCE / UP	PDATE	QA Closed:	Date		
											QA Closed.	Date	•	
Work Orde	oř.					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS		
WOIK OIG	-					Rework	1		Skid-tube	Crosstube]	Water Jet	Engineering	
Part N	۷n					Scrap	1		Machining	Small Fab	Pro	d. Eng. Coor.	Quality	
						Use-as-is	1		noforming	Finishing	i	re/Packaging	Other	
NCR N	No.					Work Order Update	1		Large Fab	Composite	,	Supplier	1 11	
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Equip/Tooling							İ							
Operator														
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Setup	Ш						1							
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	Ц	Centre No	ot Conce	ntric to	o/s	BOM/Route	<u></u>	Hardwa		<u></u>	Over/Under	<u> </u>	Temperature/Cure	
	ш	Cracks				Broken/Damaged	_	1 '	on Incomplete	<u> </u>	Part Incorre	<u> </u>	Weld	
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	Ш	Cuffs			<u> </u>	Contamination		Mainte			Part Moved			
	Ш	Heat Trea	at			Countersink	\perp	Mislabe	led		Positioned V		_	
Inspection Strip in Tube			n Strip in	Tube	ł	Cut Too Short		Misreac	1		Power Loss/	Surge	Other	

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drill Holes

Drawing

Finish Folio April-11-13 7:51:01 AM

QC

Quality Control

Item ID: D4073-1 Accept *N900040100* Setup Start **Revision ID:** Item Name: Door Hinge **Start Date:** 4/11/13 **Start Qty:** 12.00 **Cust Item ID:** Required Date: 4/25/13 **Req'd Qty:** 12.00 **Customer:** Reference: Run Process Plan: Approvals: Date: Tooling: Date: Stop Date: SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool # Plan Tool ID Reject Accept Reject Insp. **Work Center ID** Description Code **Run Hours** Qty Qty Number Stamp 190 QC21- Final Inspection - Work Order Release 0.00 *190*

0.00

Memo

13-4-26

NCR:	Yes	1	No
MCU.	162	•	140

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

NCR: Y	es / No				WORK ORDER NON-	CONFOR	AVIAINCE / U	PUATE	QA Closed:	Date	:
Morle Orda	٠.			: 1	DISPOSITION			AGAINST DE	EPARTMENT	/PROCESS	
Work Orde					Rework	7 	Skid-tube	Crosstube	7	Water Jet	Engineering
Part N	lo				Scrap	┧ ┃	Machining	Small Fab	Pro	d. Eng. Coor.	Quality
, are i					Use-as-is	The	moforming	Finishing	⊣	re/Packaging	Other
NCR N	lo.				Work Order Update	1 1	Large Fab	Composite	1	Supplier	
						1	· · ·				
Root				Descr	iption of work order update	Initial	Α	Action	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Chief En	g Des	scription	. Date	Verification	QC Inspector
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raining											
Inapproved			<u> </u>				<u></u>		1		
						AULT CAT	EGORY	-,			
Landii	ng Gear			_	General				7	_	_
	Bending	5		_	Bend	Grain			Ovalized		Pressure/Forced
	Centre 1	Not Conce	ntric to	o/s	BOM/Route	Hardv	vare	_	Over/Under	tolerance	Temperature/Cure
	Cracks			L	Broken/Damaged	Inspe	ction Incomplete	L	Part Incorre	ct	Weld
	Crushed	l/Crimped			Burrs	Instru	ctions Incomplete	e/Unclear	Part Lost/M	issing	Wrong Stock Pulled
	Cuffs			L	Contamination	Main	tenance		Part Moved		at .
	Heat Tro	eat	•		Countersink	Misla	peled		Positioned V	Vrong	_ ·
	Inspecti	on Strip ir	Tube		Cut Too Short	Misre	ad	,	Power Loss/	Surge	Other
	Ripples	in Bend			Drill Holes	Offset					
	Torque	Waves in	Extrusio	n 🗌	Drawing ·	Out o	f Calibration				7 W .
	Turning	Sequence	9		Finish	Out o	f Sequence				Area dres
					Teolio	Outsid	Outside Dimensions				

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Order ID: 99521

D4073-1

Parent Item Name: Door Hinge

99521

D4073-1

Start Date: 4/11/13

Required Date: 4/25/13

Page 1

Start Qty: 12.00

**

Required Qty: 12.00

Comments:

Parent Item:

IPP REV:A NEW ISSUE 10-06-08 JLM VERIFIED BY:DD

REV:B DRAWING REV. CHANGE AS PER ECN 11-598

IPP 11-07-05 JFS

VERIFIED BY:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure		Qty per Kit		Qty Issued	Date Issued	Status
M6061T6B2.000X01.25		Purchased	No			100	f	10.2850	0.38	4.8			

M6061T6B2 000X01 250

Location	Loc Qty	Loc Code
MAT009	10.28502716	
12011	0.00002716	
124573	10.285	

											DQA:	Date	2:
NCR: Y	'es / 1	No	-			WORK ORDER NON-C	ON	NFORM	MANCE / UP	DATE	QA Closed:	Date	e:
Work Orde	, r.					DISPOSITION				AGAINST DE	<u> </u>		
Part No. NCR No.				·	Rework Scrap Use-as-is Work Order Update	Scrap Machining Small Fab Use-as-is Thermoforming Finishing			Small Fab Finishing	4	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other	
Root					Descri	ption of work order update	ı	nitial	Act	tion	Sign &		
Cause	Da	ite S	Step	Qty	C	or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved													
						F/	AUL	T CATE	GORY				
Landir r	ng Gear				,	General		i		_	7	Г	¬, ,,
	Bend	ling re Not (Concen	tric to	o/s	Bend BOM/Route	\vdash	Grain Hardwa	re		Ovalized Over/Under	tolerance	Pressure/Forced Temperature/Cure
	Crac					Broken/Damaged	\vdash	l	on incomplete		Part Incorred	F	Weld
	Crus	hed/Cri	mped			Burrs		instruct	ions Incomplete/	Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
	Cuffs	5				Contamination	\vdash	Mainte			Part Moved		
		Treat				Countersink	-	Mislabe			Positioned V		 1
	Insp	ection S	trip in	Tube		Cut Too Short	Ш	Misread	i		Power Loss/	Surge	Other
	Ripp	les in Be	end			Drill Holes		Offset					

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

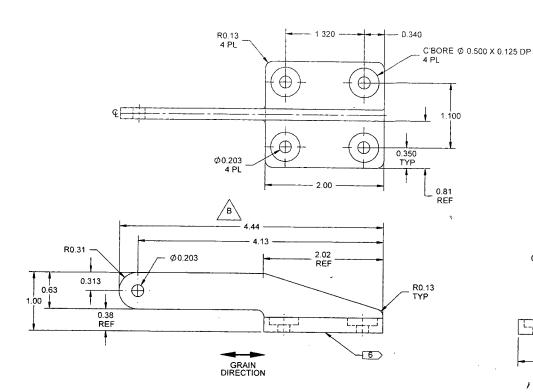
Wave/Twist in Tube

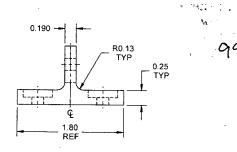
Torque Waves in Extrusion

Drawing

Finish Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G





99521 MLJ 13-04-11

D4073-1 DOOR HINGE

NOTES:

1) MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116) OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160) OR ASTM B211 OR ASTM B221

REF DART SPEC M6061T6B

2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3

3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED 4.1 UNITS: INCHES UNLESS OTHERWISE NOTED 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX 6) IDENTIFICATION: PER QSI 044 6.1

7) WEIGHT: 0.12 lbs

В	4.44 WA	S 3.75; 4.13	WAS 3.44 (ZN C6-1)	RF	11.05.02				
Α	NEW ISS	SUE		RF	10.09.16				
REV.			DESCRIPTION	DESCRIPTION BY I					
DESIG DRAW		RF.	DART AEROSPACE USA, INC.						
CHECKED #			DRAWING NO. D4073	Γ.					
APPRO		***	DOOR HINGE						
DATE	11.0	5.02	THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR C	COPYRIGHT © 2010 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OF COMPED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WAITTEN PURSENSIN PROMITT AFROMERS IN ANY					

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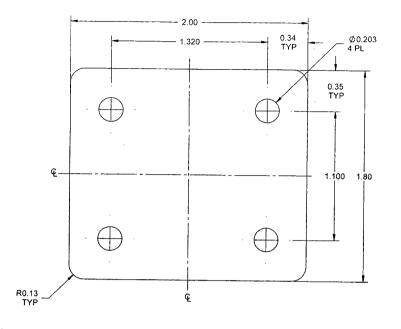
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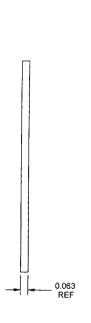
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D4073-3 DOOR HINGE BACKING PLATE

NOTES:
1) MATERIAL: 6061-T6/T62 ALUMINUM SHEET, 0.063 THICK PER QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM 8209
OR ASTM 8209
REF DART SPEC M6061T6S.063
2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED 4) UNITS: INCHES UNLESS OTHERWISE NOTED 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX 6) IDENTIFICATION: PER QSI 044 6.1
7) WEIGHT: 0.02 lbs

D

С

DESIGN	AS	DART AEROSPAC	FIISA INC
DRAWN	ŔF	PORT HADLOC	
CHECKED	4	DRAWING NO.	REV. B
MFG. APPR.	all.	□ D4073	SHEET 2 OF 2
APPROVED	#	TITLE	SCALE
DE APPR.	4	DOOR HINGE	NTS

DATE

11.05.02

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DART AEROSPACE LTD	Work Order: 9957	[
Description: Door Hinge	Part Number: D4073-1	
Inspection Dwg: D4073 Rev: B	Page 1 of	1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
R0.13	+/-0.030	0.130			ad garge	
Ø0.203	+0.005/-0.001	0.204			ven	27-4
2.00	+/-0.030	1.999	/			
0.81	+/-0.030	0.803				
0.350	+/-0.010	0.348	/			
1.100	+/-0.010	1.099				
Ø0.500 x 0.125	+/-0.010	-502 x ,125				
0.340	+/-0.010	0.340	✓			
1.320	+/-0.010	1,318				
4.44	+/-0.030	4.434				
4.13	+/-0.030	4.126			hight gang	231006
R0.31	+/-0.030	6.310	./.:			
0.313	+/-0.010	0.309				
0.63	+/-0.030	0.620				
1.00	+/-0.030	0.998				
0.38	+/-0.030	0.374				
0.190	+/-0.010	0.192				
1.80	+/-0.030	1.799	/			
0.25	+/-0.030	0.250				
R0.13	+/-0.030	0.130				
			· · · · · · · · · · · · · · · · · · ·			
	DAG					

Measured by: Audited by: Ft Preliminary Approval:

Date: 13-04-18

Date: 13/04/19

Date:

Rev	Date	Change	Revise		Approved
Α	11.07.26	New Issue	KJ	ON.	
				- F - 3 -	7~